

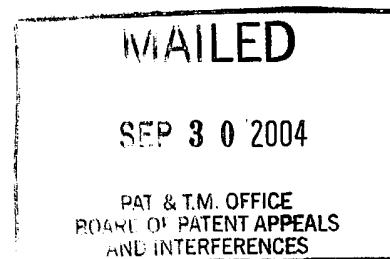
The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte JORGE A. MORANDO

Appeal No. 2004-2111  
Application No. 09/535,550



ON BRIEF

Before GARRIS, WARREN, and OWENS, Administrative Patent Judges.  
GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 2-29 and 34 which are all of the claims pending in the application.

The subject matter on appeal relates to a component of equipment for use in molten melts which include magnesium wherein the component is formed from an alloy having particular ingredients. Further details regarding this appealed subject

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matter are set forth in representative independent claim 28 which reads as follows:

28. A component of equipment for use in molten melts which include magnesium, the component formed from an alloy comprising iron, chromium, molybdenum, vanadium, niobium, cobalt, and tungsten, and at least one of boron and carbon, the alloy being substantially free of sulfur and phosphorus.

The references set forth below are relied upon by the examiner in the section 102 and section 103 rejections before us:

Fujikawa et al. (JP '740)	JP 63-274740 <sup>1</sup>	Nov. 11, 1988
Nishimura et al. (JP '673)	JP 08-325673 <sup>1</sup>	Oct. 12, 1996
Goto et al. (JP '051)	JP 09-049051 <sup>1</sup>	Feb. 18, 1997
Shimizu et al. (JP '410)	JP 11-293410 <sup>1</sup>	Oct. 26, 1999

Claim 28 stands rejected under 35 U.S.C. § 102(b) as being unpatentable over JP '051, JP '673, JP '740 or JP '410.

Under 35 U.S.C. § 103(a): claims 2, 4-27, 29 and 34 stand rejected as being unpatentable over JP '051; claims 2, 4-7, 10-16, 18, 20-26, 29 and 34 stand rejected as being unpatentable over JP '673; claims 2-4, 6-13, 16-26, 29 and 34 stand rejected as being unpatentable over JP '740; and claims 2-9, 14-18, 20, 22, 23, 26, 29 and 34 stand rejected as being unpatentable over JP '410.

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<sup>1</sup> Our understanding of these references is derived from the abstracts and translations thereof which are in the record of this application file.

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Notwithstanding the apparently contrary view expressed by the examiner on page 3 of the answer, the appellant has plainly stated in the brief and reply brief his desire that the claims be individually considered in this appeal. Accordingly, we will individually consider these claims to the extent that they have been separately argued by the appellant. See 37 CFR § 41.37(c)(1)(VII)(2004), formerly 37 CFR § 1.192(c)(7)(2002). Also see Ex parte Schier, 21 USPQ2d 1016, 1018 (Bd. Pat. App. & Int. 1991) .

We refer to the brief and reply brief and to the answer for a complete discussion of the opposing viewpoints expressed by the appellant and by the examiner concerning the above noted rejections.

#### OPINION

We cannot sustain the examiner's section 103 rejection of claim 27 as being unpatentable over JP '051 or the section 103 rejection of claims 7 and 26 as being unpatentable over JP '740 or the section 103 rejection of claims 2 and 3 as being unpatentable over JP '410. However, for the reasons expressed in the answer and below, we will sustain each of the other section 102 and section 103 rejections before us on this appeal.

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It is well settled that anticipation is established when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Here, the examiner finds that each of the applied references discloses a component formed from an alloy which fully corresponds to the alloy composition defined by appealed independent claim 28, and the appellant does not contend otherwise. Instead, the appellant argues that claim 28 distinguishes from each of the applied references by virtue of the recitation "for use in molten melts which include magnesium." This argument is not well taken.

As explained in the answer, it is questionable whether the appellant's independent claim is limited to a component "for use in molten melts which include magnesium." In any event, it is reasonable to consider, as the examiner has done, the prior art alloys of the here applied references to inherently possess the capability of such a use. See Ex parte Levy, 17 USPQ2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990) . It is the compositional

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identity of the claim 28 alloy and the applied prior art alloys which renders the examiner's inherency determination a reasonable one.

Under these circumstances, we share the examiner's viewpoint that, insofar as claim 28 is concerned, the appellant has simply discovered a previously unappreciated property of the alloy compositions disclosed in each of the applied references. See Atlas Powder Co. v. IRECO Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1946-47 (Fed. Cir. 1999) and In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). Also see Schering Corp. v. Geneva Pharmaceuticals Inc., 339 F.3d 1373, 1377-80, 67 USPQ2d 1664, 1667-69 (Fed. Cir. 2003).

It is here appropriate to reiterate the examiner's point that, where the claimed and prior art products are identical (as in the circumstance before us), the Patent and Trademark Office can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed products. Whether the rejection is based on "inherency" under 35 U.S.C. § 102, on "prima facie obviousness" under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the inability of the Patent and Trademark Office to manufacture products or to obtain

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and compare prior art products. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977). On the record of this appeal, the appellant has proffered no such proof.

In light of the foregoing, and for the reasons expressed in the answer, it is our determination that the examiner has established a prima facie case of anticipation which the appellant has failed to successfully rebut with argument or evidence to the contrary. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). We hereby sustain, therefore, the examiner's section 102 rejection of claim 28 as being anticipated by JP '051, JP '673, JP '740 or JP '410.

Concerning the section 103 rejection based on JP '051, it is indisputable that the 0.50-0.60 weight percent carbon content range defined by appealed claim 27 is far outside the 1-3 weight percent carbon content range disclosed in the aforementioned reference. In light of this circumstance, we perceive no basis for a conclusion of obviousness. See In re Sebek, 465 F.2d 904, 906-07, 175 USPQ 93, 95 (CCPA 1972). Moreover, the examiner's answer does not present with reasonable specificity a basis for such an obviousness conclusion.<sup>2</sup> It follows that we cannot

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<sup>2</sup> Indeed, the fact that appealed claim 3, which contains the same carbon content limitation as claim 27, was dropped from this  
(continued...)

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sustain the examiner's section 103 rejection of claim 27 as being unpatentable over JP '051.

Nevertheless, we are convinced that JP '051 establishes a prima facie case of unpatentability with respect to each of the other rejected claims on appeal including those specifically argued by the appellant. This is because the ingredient ranges of the alloys disclosed by this reference include values which are encompassed by these argued claims. Thus, the reference expressly teaches or at least would have suggested the ingredient concentrations defined by the rejected claims including argued claims 6, 7, 9 and 22.

For example, the JP '051 reference teaches that the alloys thereof should contain 0.08% or less of the impurities phosphorous and sulphur, and, at a minimum, this teaching would have suggested phosphorous and sulphur concentrations respectively of less than about 0.005 weight percent as required by claims 6 and 7. The 10% chromium concentration expressly taught by this reference fully corresponds to the 10% chromium

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<sup>2</sup>(...continued)

rejection by the examiner (compare the rejection as presented in the final Office action mailed May 22, 2002 to the rejection as presented in the examiner's answer) indicates to us that the inclusion of claim 27 in this rejection was due to an inadvertent oversight on the examiner's part.

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concentration embodiment encompassed by dependent claim 9. See Atlas Powder Co. v. IRECO Inc., 190 F.3d at 1943, 51 USPQ2d at 1945-46. Similarly, the absence of tantalum in the alloys disclosed by JP '051 fully corresponds to the 0% tantalum concentration embodiment encompassed by claim 22.

For these reasons and those expressed in the answer, we also determine that the examiner has established a prima facie case of unpatentability which the appellant has failed to successfully rebut with argument or evidence vis-à-vis the section 103 rejection of claims 2, 4-26, 29 and 34 based on JP '051. It follows that we hereby sustain the rejection of these claims as being unpatentable over the aforementioned reference.

For reasons analogous to those discussed above, we are convinced that the record of this appeal supports a prima facie case of unpatentability with respect to the rejection of claims 2, 4-7, 10-16, 18, 20-26, 29 and 34 based on JP '673. We perceive no merit in the appellant's argument that claims 16 and 18 patentably distinguish over this reference. This is because the reference expressly discloses vanadium and niobium values (i.e., 3% and 2% respectively) for the alloys thereof which fully correspond to values explicitly recited in these claims. See



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Atlas Powder Co., id. Therefore, we likewise hereby sustain the examiner's aforementioned section 103 rejection based on JP '673.

On the other hand, the section 103 rejection of claims 7 and 26 based on JP '740 cannot be sustained. Each of these claims requires a phosphorous concentration of less than 0.005 weight percent. Significantly, the reference under consideration does not disclose phosphorous as an impurity like the other references applied by the examiner but instead teaches that the alloys thereof should contain phosphorous as a sintering acceleration element in amounts which are far outside the here claimed range (e.g., see the Abstract as well as pages 8 and 15 of the translation copy). There is no prima facie case of obviousness under these circumstances for the phosphorous concentration defined by claims 7 and 26. Again, see In re Sebek, 465 F.2d at 906-07, 175 USPQ at 95.

As for the other claims rejected over JP '740, this reference expressly teaches or at least would have suggested alloy embodiments which correspond to those embraced by these other claims including argued claim 4. More specifically, the reference teaches alloys containing a boron concentration of 0.5 weight percent (e.g., see the Abstract) which fully corresponds to the 0.5 weight percent embodiment encompassed by this argued

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claim. As a consequence, we hereby sustain the examiner's section 103 rejection of claims 2-4, 6, 8-13, 16-25, 29 and 34 as being unpatentable over JP '740.

The examiner's section 103 rejection of claims 2 and 3 as being unpatentable over JP '410 cannot be sustained. This is because, as in analogous circumstances described earlier, the carbon concentration ranges of claims 2 and 3 (i.e., 0.4 to 2.0 weight percent and 0.5 to 0.6 weight percent respectively) are far outside the range disclosed by this reference (i.e., 0.1 weight percent or less). Sebek, id.

We hereby sustain, however, the examiner's § 103 rejection of claims 4-9, 14-18, 20, 22, 23, 26, 29 and 34 as being unpatentable over JP '410. Based on previously expressed rationale, it is our determination that the examiner has established a prima facie case of unpatentability which the appellant has failed to successfully rebut with either argument or evidence. As an example, the appellant argues that the reference under consideration contains no teaching or suggestion of the subject matter defined by claims 17, 18 or 20. This is incorrect. The JP '410 reference expressly teaches alloys having a 2% niobium concentration and a 3% cobalt concentration (e.g., see the Abstract), and claims 18 and 20 respectively recite these

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same niobium and cobalt values as embodiments of the appellant's claimed subject matter. As for claim 17, the .1 to 4% vanadium concentration taught by the here applied reference (e.g., again see the Abstract) fully encompasses the claimed 2.0 to 2.4 weight percent range. This circumstance supports a prima facie case of obviousness. See, for example, Ex parte Lee, 31 USPQ2d 1105, 1107 (Bd. Pat. App. & Int. 1993).

In summary, we affirm the examiner's decision to reject claims 2-26, 28, 29 and 34 but reverse his decision to reject claim 27.

The decision of the examiner is affirmed-in-part.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

Bradley R. Garris  
Administrative Patent Judge

Charles F. Warren  
Administrative Patent Judge

BOARD OF PATENT  
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